

DSP-3, encoded by 552 base pairs

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1  CCCC GCCGCT CCTCCTCCCT GTAACATGCC ATAGTGCGCC TGC GACCACA CGGCCGGGGC
61 GCTAGCGTTC GCCTTCAGCC ACCATGGGGA ATGGGATGAA CAAGATCCTG CCCGGCCTGT
121 ACATCGGCAA CTTCAAAGAT GCCAGAGACG CGGAACAATT GAGCAAGAAC AAGGTGACAC
181 ATATTCTGTC TGTCCACGAT AGTGCCAGGC CTATGTTGGA GGGAGTTAAA TACCTGTGCA
241 TCCCAGCAGC GGATTCACCA TCTCAAAACC TGACAAGACA TTTCAAAGAA AGTATTAAAT
301 TCATTCACGA GTGCCGGCTC CGCGGTGAGA GCTGCCTTGT ACACTGCCTG GCCGGGGTCT
361 CCAGGAGCGT GACACTGGTG ATCGCATACA TCATGACCGT CACTGACTTT GGCTGGGAGG
421 ATGCCCTGCA CACCGTGCGT GCTGGGAGAT CCTGTGCCAA CCCCAACGTG GGCTTCCAGA
481 GACAGCTCCA GGAGTTTGAG AAGCATGAGG TCCATCAGTA TCGGCAGTGG CTGAAGGAAG
541 AATATGGAGA GAGCCCTTTG CAGGATGCAG AAGAAGCCAA AAACATTCTG GCCGCTCCAG
601 GAATTCTGAA GTTCTGGGCC TTTCTCAGAA GACTGTAATG TACCTGAAGT TTCTGAAATA
661 TTGCAAACCC GCAGAGTTTA GGCTGGTGCT GCCAAAAAGA AAAGCAACAT AGAGTTTAAG
721 TATCCAGTAG TGATTTGTAA ACTTGTTTTT CATTGAAGC TGAATATATA CGTAGTCATG
781 TTTATGTTGA GAACTAAGGA TATTCTTTAG CAAGAGAAAA TATTTTCCCC TTATCCCCAC
841 TGCTGTGGAG GTTTCTGTAC CTCGCTTGGA TGCCTGTAAG GATCCCGGGA GCCTTGCCGC
901 ACTGCCTTGT GGGTGGCTTG GCGCTC
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FIG. 1

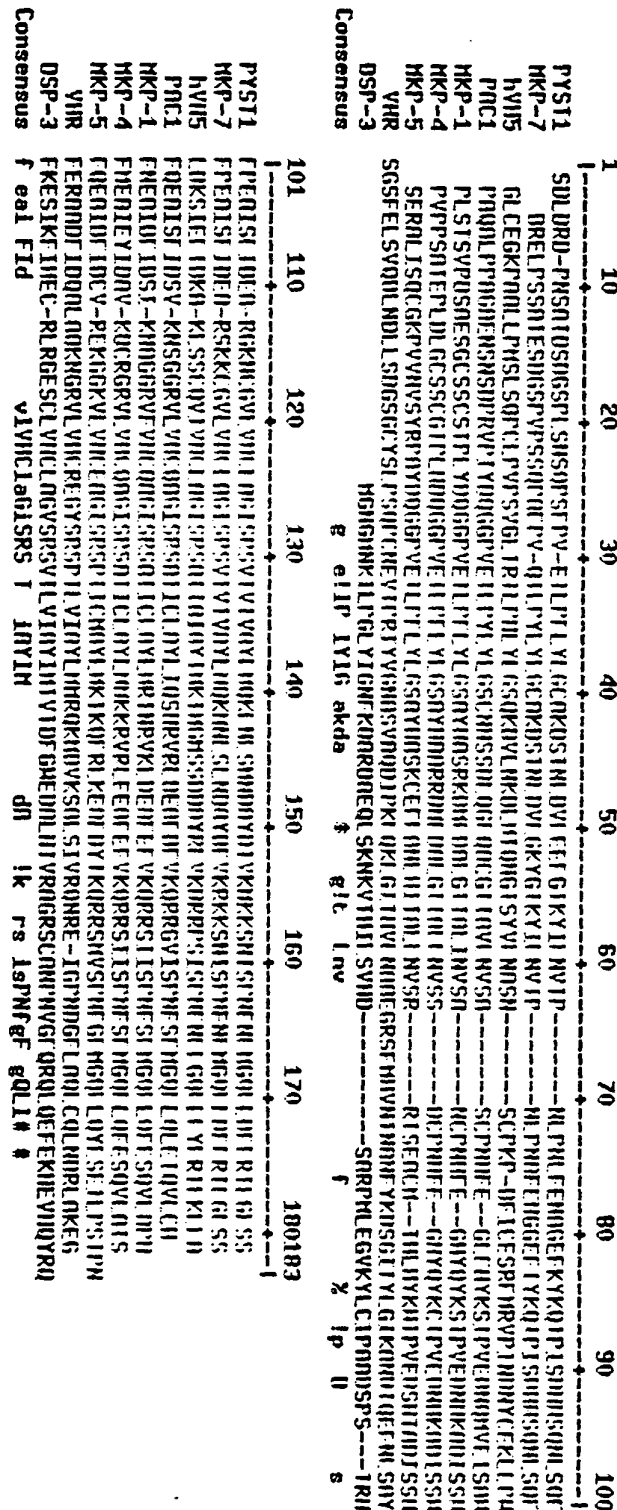
DSP-3 DUAL-SPECIFICITY PHOSPHATASE
Inventors: Ralf M. Luche and Bo Wei Docket No. 200125.408C2
EXPRESS MAIL NO. EV 348169763US

Translated full length protein, 184 amino acids

MGNGMNKILPGLYIGNFKDARDAEQLSKNKVTHILSVHDSARPMLEGVKYLCIPAADSPS
QNLTRHFKESIKFIHECRLRGESCLVHCLAGVSRSVTLVIAYIMTVTDFGWEDALHTVRA
GRSCANPNVGFQRQLQEFKHEVHQYRQWLKEEYGESPLQDAEEAKNILAAPGILKEWAF
LRRL*

FIG. 2

FIG. 3



DSP-3

Northern blot analysis



- He = Heart
- Br = Brain
- Pl = Placenta
- Lu = Lung
- Li = Liver
- SM = Skeletal Muscle
- Ki = Kidney
- Pa = Pancreas

FIGURE 4

muDSP3 cDNA

CGAGCGCGGACGCGACGCGGCGCGGCCATGGGGAGTGGGATGAGCCAGATCCTGCCGGG
CCTGTACATTGGCAACTTCAAAGACGCAAGAGATGCAGAACAGTTGAGCAGGAACAAGG
TGACACACATTCTTTCTGTGCACGATACTGCCAGGCCCATGTTGGAGGGAGTTAAATAC
CTGTGTATTCCAGCGGCAGACACACCATCTCAAAACCTGACAAGACATTTCAAAGAAAG
CATTAAATTCATTCATGAGTGCCGACTCCAGGGTGAGAGCTGTCTTGTACATTGCCTGG
CTGGGGTCTCCAGGAGTGTGACATTGGTGATCGCATACATCATGACTGTCACCGACTTT
GGCTGGGAAGATGCCTTGCACACTGTTTCGTGCGGGGAGGTCCTGTGCCAACCCCAACCT
GGGCTTTCAAAGGCAGCTGCAGGAGTTTGAGAAACATGAAGTGCACCAGTATCGGCAAT
GGCTGAGAGAAGAGTATGGAGAGAACCCTTTGCGGGATGCAGAAGAAGCCAAAAATATT
CTGGGTAAATATAAAGAGCAAGGGCGCATGGAGCCCCGGCCTAGCAGCAGGCGGTGGAG
CAGCTTCTCAACCCTGCCTCCTCTCACCTACAATACTACACAACAGAGACCTAACAGA
GAGAGCTGGTGTCTGCCTTCCTGCTGCGGGTCTTCTGG

Figure 5

DSP-3 DUAL-SPECIFICITY PHOSPHATASE
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EXPRESS MAIL NO. EV 348169763US

muDSP3 amino acids

MSGMSQILPGLYIGNFKDARDAEQLSRNKVTHILSVHDTARPMLEGVKYLCIPAADTP
SQNLTRHFKESIKFIHECRLQGESCCLVHCLAGVSRSVTLVIAYIM**TVTDFGWEDALHTV**
RAGRSCANPNLGFQRQLQEFKHEVHQYRQWLREEYGENPLRDAEEAKNILGKYKEQGR
MEPRPSSRRWSSFSTLPPLTYNNYTTET★

Figure 6